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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/988,555  | 11/20/2001  | Yuji Aburakawa       | 216353US2           | 8872             |
| 22850   | 7590        | 08/09/2005           | EXAMINER            |                  |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      | LI, SHI K           |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2633                |                  |

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/988,555

Applicant(s)

ABURAKAWA ET AL.

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 42,43,61,62 and 67-71 is/are pending in the application.  
4a) Of the above claim(s) 1-41,44-60 and 63-66 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 42,43,61,62 and 67-71 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Species XIV in the reply filed on 6 May 2005 is acknowledged. The traversal is on the ground(s) that a search and examination of the entire application would not place a serious burden on the Examiner; whereas it would be a serious burden on Applicants to prosecute and maintain separate applications. The Applicant states the facts that the present application would have to be searched in a handful of sub-classes and a search may be made of a large number, or theoretically all, subclasses without substantial additional effort by using electronic searching and argues based on MPEP §803. This is not found persuasive because the Applicant's argument only addresses sub-class search while the condition for the exception of MPEP §803 requires that both the search and examination of the entire application can be made without serious burden. MPEP §904 addresses search which includes classified search (§904.02(a)), text search, NPL search, specialized database search, etc. In addition to search, an examiner needs to study the retrieved patents, non-patent literature and the claims to determine whether a single document or a combination of two or more documents teach the claimed invention, as well as the examination of the specification and claim language to determine whether they meet applicable patent laws and patent rules. In view of the large amount of species and claims of the instant application, the search and examination of the entire set of claims places a serious burden on the Examiner and, therefore, the condition for the exception stated in MPEP §803 is not met by the instant application.

The requirement is still deemed proper and is therefore made FINAL.

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The Applicant identifies claims 42, 43, 61, 62, 67, 68, 70 and 71 as readable on the elected species. Since claim 69 is generic to claim 70, it is also examined. Claims 1-41, 44-60 and 63-66 are withdrawn from consideration.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 69 is rejected under 35 U.S.C. 102(b) as being anticipated by Walker et al. (U.S. Patent 5,659,883).

Walker et al. discloses in FIG. 1 a receiving apparatus 12 comprising a radio signal receiver 28, an optical signal receiver 32 and a microcontroller 34 for combining the outputs 48 and 50 from the radio signal receiver and the optical signal receiver.

4. Claim 69 is rejected under 35 U.S.C. 102(e) as being anticipated by Willebrand et al. (U.S. Patent 6,763,195 B1).

Willebrand et al. teaches in FIG. 3 an optical receiving part 64 at the slave station for receiving the optical signal from the master station, a radio receiving part 66 at the slave station for receiving the radio signal from the master station and a slave transceiver interface unit 68 for combining the signals from the optical receiving part and the radio receiving part.

***Claim Rejections - 35 USC § 103***

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 42-43, 61-62, 67-68 and 70-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willebrand et al. (U.S. Patent 6,763,195 B1) in view of Walker et al. (U.S. Patent 5,659,883).

Regarding claims 42, 61, 67 and 70, Willebrand et al. discloses in FIG. 3 a communication system for transmitting information from a master station to a slave station. Willebrand et al. teaches in col. 5, lines 22-30 that the communication system operates in either an active mode or a standby mode. In the active mode, the master transceiver interface unit (TIU) divides information signal into a first signal part for the radio frequency transceiver and a second signal part for the optical transceiver. In the standby mode, the RF channel acts as a protection for the optical channel. Willebrand et al. also teaches an optical receiving part at the slave station for receiving the optical signal from the master station, a radio receiving part at the slave station for receiving the radio signal from the master station and a slave transceiver interface unit for combining the signals from the optical receiving part and the radio receiving part. Willebrand et al. teaches that the signal at I/O 32 is an RF signal. That is, Willebrand suggests a radio signal modulation means for modulating signal to a radio frequency spectral range. The difference between Willebrand et al. and the claimed invention is that Willebrand et al. does not teach diversity combining information signal in standby mode.

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Walker et al. teaches in FIG. 2 that in a hybrid RF/optical link, when either the RF channel or the optical channel has unacceptable error rate, it is desirable to send copies of signal via both the RF and optical channels, and determine and choose the best or correct signal out of the two received copies. One of ordinary skill in the art would have been motivated to combine the teaching of Walker et al. with the communication system of Willebrand et al. such that in standby mode, copies of information signal are sent via both the RF and optical channels, and determination is made to choose the best or correct signal out of the two received copies because there are situations when the optical channel has lower error rate than the RF channel, and vice versa. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to send copies of signal via both the RF and optical channel, and determine and choose the best or correct signal out of the two received copies, as taught by Walker et al., in the communication system of Willebrand et al. during standby mode because the method of Walker et al. covers both situations when the optical channel has lower error rate than the RF channel and when the RF channel has lower error rate than the optical signal.

Regarding claims 43, 62, 68 and 71, Willebrand et al. teaches that the system is switched from active mode to standby mode when the transmission condition is degraded.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

skl

1 August 2005



**Shi K. Li**  
**Patent Examiner**